

AMENDMENTS TO THE CLAIMS

1. – 14. (canceled)

15. (New) A method of producing a monoclonal antibody, comprising the steps of:

fusing a B cell of a transgenic mouse with an immortal cell line to obtain a hybridoma, wherein the hybridoma comprises a rearranged immunoglobulin heavy chain nucleotide sequence which expresses a heavy chain polypeptide, and a rearranged immunoglobulin light chain nucleotide sequence which expresses a light chain polypeptide;

introducing into the hybridoma an exogenous nucleotide sequence which encodes a heavy chain polypeptide identical to the heavy chain polypeptide expressed by the endogenous immunoglobulin heavy chain to thereby obtain a transformant hybridoma transformed with the exogenous nucleotide sequence;

culturing the transformant in a cell culture medium; and

obtaining a monoclonal antibody produced by the transformant.

16. (New) The method of claim 15, wherein the nucleotide sequence encoding the immunoglobulin heavy chain has an identical nucleotide sequence to the exogenous nucleotide sequence introduced into the hybridoma.

17. (New) The method of claim 16, wherein the immortal cell line is a myeloma cell line.

18. (New) The method of claim 17, wherein the myeloma cell line is a recombinant myeloma cell line.

19. (New) The method of claim 15, wherein the rearranged immunoglobulin heavy chain nucleotide sequence comprises a human sequence.

20. (New) The method of claim 15, wherein the rearranged immunoglobulin light chain nucleotide sequence comprises a human sequence.

21. (New) The method of claim 15, wherein the exogenous sequence further comprises a gene-amplification gene.

22. (New) The method of claim 21, wherein the gene-amplification gene is dihydrofolate reductase (DHFR) gene.

23. (New) A transformant produced by a method comprising the steps of:

fusing a B cell of a transgenic mouse with an immortal cell line to obtain a hybridoma, wherein the hybridoma comprises a rearranged immunoglobulin heavy chain nucleotide sequence which expresses a heavy chain polypeptide, and a rearranged immunoglobulin light chain nucleotide sequence which expresses a light chain polypeptide;

introducing into the hybridoma an exogenous nucleotide sequence which encodes a heavy chain polypeptide identical to the heavy chain polypeptide expressed by the endogenous immunoglobulin heavy chain to thereby obtain a transformant hybridoma transformed with the exogenous nucleotide sequence;

culturing the transformant in a cell culture medium; and
obtaining a transformant.